

Claims

1. A claw pole generator, having a rotor (20) of claw pole construction, wherein the rotor (20) is formed of a pole wheel half (22), connected to a rotor shaft (32) in a manner fixed against relative rotation, and a pole carrier (26), also connected in a manner fixed against relative rotation to the pole wheel half (22) by a retaining means, wherein the rotor (20) has first claw poles (28) and second claw poles (29), wherein the first claw poles (28) are formed by the pole wheel half (22) and the second claw poles (29) are formed by the pole carrier (26), wherein the first claw poles (28) alternate, on the circumference of the rotor (20), with the second claw poles (29), and claw pole interstices (36) are located in the circumferential direction between the first claw poles (28) and the second claw poles (29), characterized in that the retaining means (34) is disposed at least partly in the claw pole interstices (36), and the retaining means (34) is connected by material engagement, in particular by welding, soldering or adhesive bonding, to the first claw poles (28) and to the second claw poles (29).

2. The claw pole generator of claim 1, characterized in that the claw poles (28) and the second claw poles (29) have claw pole flanks, extending in particular radially inward, and the retaining means (34) is connected at the claw pole flanks (40) to the pole wheel half (22) and to the pole carrier (26).

3. The claw pole of one of the foregoing claims, characterized in that the retaining means comprises many

individual retaining elements (44).

4. The claw pole of claim 3, characterized in that each two adjacent retaining elements (44) are joined to one another by tabs (48) in the region of a first and a second free claw pole end (46; 47).

5. The claw pole of claim 4, characterized in that the tabs (48) are bent at an angle relative to a rotor shaft (32).

6. The claw pole of claims 4 or 5, characterized in that the tabs (48) located on the pole wheel half (22) and/or on the pole carrier (26) terminate flush with an axial outer side (50) of the pole wheel half (22) and/or of the pole carrier (26).

7. The claw pole of one of claims 4, 5 or 6, characterized in that the retaining means (34) comprises one piece, and the tabs (48) integrally connect the retaining elements (44).

8. The claw pole of claim 7, characterized in that the one-piece retaining means (34) has a substantially cylindrical-jacketlike structure, which has open recesses, alternating on the pole carrier and the pole wheel, for the first claw poles (28) and the second claw poles (29), respectively.

9. The claw pole of one of claims 3-8, characterized in that legs (54) extend to both sides of the first and second claw poles (28; 29) in an essentially radial direction, approximately parallel to the first and second claw pole flanks (46; 47).

10. The claw pole of claim 9, characterized in that two opposed legs (54) in a claw pole interstice (36) are each connected by one web (56) in the region of a respective free first and second claw pole end (46; 47).

11. The claw pole of claim 9, characterized in that the legs (54) are joined on their radially inward-oriented ends (62) by a profile closing element (60), creating a closed hollow profile (61).

12. The claw pole of claim 11, characterized in that the hollow profile (61) is closed on one of its axial ends by the tab (48) and is open on its other axial end.

13. The claw pole of one of claims 5-12, characterized in that each two adjacent legs (54) of two claw pole interstices are connected by a pole end web (68) below the first and second claw poles (28; 29).

14. The claw pole of one of the foregoing claims, characterized in that at least one permanent magnet (70) is secured to the retaining means (34).

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